APPENDIX IV

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73. A coated optical fiber comprising: an optical fiber; and	Original claim 3 (page 119, lines 11-12) is directed to "A coated optical … fiber." Page 1, lines 20-22 ("The invention also relates to coated optical glass fibers … .")
a cured primary coating on the optical fiber	Original claim 91 (page 137) is directed to a coated optical glass fiber having an inner primary coating adjacent to the glass fiber. The cured primary coating is disclosed at page 34, lines 1-22 ("compositions were suitably cured by exposure to UV light …"); page 50, lines 22-31 ("Radiation-curing is generally rapidly effected with the use of ultraviolet light.")
wherein the primary coating is strippable from a portion of the optical fiber	It is disclosed on page 9, lines 3-5 that an objective of the invention is to provide a ribbon assembly with improved ribbon stripping capability. Strippability of the primary coating is described on page 9, line 28 to page 10, line 2 ("… to allow the inner primary coating to slide readily off from the optical glass fiber … when a stripping force … is applied … .")
at a temperature in at least a portion of the temperature range from about 25° to about 125° C	The temperature is described on page 32, lines 2-5 ("The dL/L for each coating was measured over the temperature range of 25 °C (ambient temperature) to 125 °C (highest usual stripping temperature).")
by exerting a force to a portion of the primary coating about the portion of optical fiber in a direction parallel to the longitudinal axis of the glass fiber which is away from a portion of the primary coating remaining on the optical fiber, such that the exertion of force,	A stripping method is disclosed on page 2, line 32 to page 3, line 16 and page 16, lines 13-27 ("When a typical ribbon stripping tool is applied to a ribbon assembly, pressure is applied to the ribbon assembly between heated plates. At the ends of the plates near the cut made in the matrix material and the inner and outer primary coatings, the inner primary coating can form an initial delamination site on the optical glass fiber, shown at 27 and 28 [in Fig. 1].")
followed by an optional one wipe with an alcohol laden piece of cloth or paper of the stripped portion of the	An optional one wipe with alcohol is disclosed in the article by Mills (the "Mills test") which is incorporated by reference at

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optical fiber, results in a stripped portion of optical fiber having substantially no residue of the primary coating.	page 7, lines 17-23. The results of stripping is disclosed on page 8, lines 33-35 ("…leave substantially no residue on the surface of said optical glass fiber during ribbon stripping ...."); page 54, lines 6-10 ("Microscopic examination of the pulled-out fibers at low magnification (e.g., 10X) clearly revealed the presence or absence of debris on the glass surface. If debris was present , the amount of debris was noted").
74. The coated optical fiber of claim 73, wherein the primary coating is strippable at the temperature upon execution of the force, to leave a stripped portion of the optical fiber having a Mill's value of about 2 or less.	Claim 2 (page 116) discloses that the stripping force is less than the cohesive strength of the inner primary coating at ribbon stripping temperature. The Mills' test values represent strip cleanliness, (page 63, lines 9-17: "When referring to strip cleanliness and predicted strip cleanliness herein, the numerical values correspond to those of the Mill's test."). Values of about 2 or less are disclosed in claims 33, 41, 47, 53, 59, 65, 71. A Mill's value of 2.0 is disclosed in Ex. 5-3, Table 9, page 97. A Mill's test value of 1.5-2 is disclosed in Ex. 4-2, Table 8, page 89.
75. The coated optical fiber of claim 73, wherein the primary coating is strippable at the temperature upon exertion of the force to leave a stripped portion of the optical fiber having a Mill's test value of 1.5.	Claim 2 (page 116) discloses that the stripping force is less than the cohesive strength of the inner primary coating at ribbon stripping temperature. A Mills' test value of 1.5 is described on page 64, Table 5, Coating F, Rating (Mill's Value 1.5) and page 89, Table 8 (Ex. 4-5, 4-7, 4-11, 4-12 all values were 1.5).

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76. The coated optical fiber of claim 73, wherein the coating prior to curing is liquid at 60° C.	The coatings prior to curing are liquid at 60 °C, as shown by the measurement of viscosity at 25 °C, as shown on page 79, Table 6, (viscosity of primary coating compositions at 25 °C, in the range of 6760 to 7650 mPa.s; similar viscosity values at 25 °C for the primary coating compositions in Tables 7, 8, 9 and 10).
77. The coated optical fiber of claim 76, wherein the coating prior to curing is liquid at 25 °C.	The coatings prior to curing are liquid at 25 °C, as shown by the measurement of viscosity at 25 °C: page 79, Table 6, (viscosity of primary coating compositions at 25 °C, in the range of 6760 to 7650 mPa.s; similar viscosity values at 25 °C for the primary coating compositions in Tables 7, 8, 9 and 10).
78. The coated optical fiber of claim 73, wherein the primary coating is made of a material which is removable from a glass substrate by an adhesion test force of less than 45 g/in, as measured by a peel back test at 50% relative humidity, has an elongation to break of at least about 88% as measure by ASTM D-638, and has a tensile strength of at least about 72.5 psi as measured by ASTM D-638.	The adhesion force (at 50% RH) of 45 g/in is shown in Ex. 2-2, Table 3, page 57; and an adhesion test force of less than 45 g/in. is shown in Ex. 2-3, Table 3, page 57. An elongation to break of at least about 88% is shown by the examples: Table 8, page 88, Elongation: 100% to 180% (Ex. 4-8, 4-9 and 4-10); Table 9, page 96, Elongation: 88% (Ex. 5-3). A tensile strength of 72.5 psi is disclosed in Ex. 5-3, Table 9, page 96 (0.5 MPa = 72.5 psi); Tensile strengths greater than 72.5 are disclosed for the primary coatings from Table 8, page 88: Ex. 4-8 (1.5 MPa = 218 psi); Ex. 4-9 (0.6 MPa = 87 MPa); Ex. 4-10 (1.1 MPa = 160 psi).
79. The coated optical fiber of claim 78, wherein the adhesion test force is about 14 g/in.	An adhesion test force of 14 g/in is disclosed in Table 3, page 57, for Comp. Ex. B-3: Adhesion at 50% RH = 14 g/in.

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80. The coated optical fiber of claim 73,	
wherein the primary coating is made of a material which is removable from a glass substrate by an adhesion force of at least 5 g/in, as measured by a peel back test at 95% relative humidity,	95% RH adhesion values are disclosed in Table 3, page 57, adhesion force = 12, 20 or 34 g/in at 95% RH (Ex. B-3, Ex. 2-3 and Ex. 2-2, respectively).
has an elongation to break is a least about 88% as measured by ASTM D-638, and	Elongation at break (measured by ASTM D-638M) of 88% is disclosed in Table 9, page 96, Ex. 5-3: Elongation = 88%; higher values are disclosed for examples Ex. 4-8 to 4-10 in Table 8, page 88.
has a tensile strength of at least about 72.5 psi as measured by ASTM D-638.	A tensile strength of at least about 72.5 psi is shown in Table 9, page 96, Ex. 5-3: (Tensile Strength = 0.5 MPa = 72.5 psi). Higher tensile strength values are shown in other examples: Ex. 5-4 (Tensile Strength = 1.1 MPa = 159.5 psi); Ex. 4-10 (Tensile Strength = 1.5 MPa = 217.5 psi) (Table 8, page 88).
81. The coated optical fiber of claim 78, wherein the elongation to break is about 140%.	The elongation to break of 140% is disclosed in Table 8 (cont), page 88; Ex. 4-9.
82. The coated optical fiber of claim 78, wherein the tensile strength is at least about 145 psi.	A tensile strength of 145 psi is disclosed in Example 4-1 in Table 7, page 85 (1 MPa = 145 psi). Higher tensile strength values are disclosed in Examples 4-8 (1.5 MPa = 217.5 psi) and 4-10 (1.1 MPa = 159.5 psi).
83. The coated optical fiber of claim 73,	
wherein said primary coating layer comprises	
a cured reaction product of from about 5 to about 80 percent by weight of	A primary coating layer which is the cured reaction product of from about 1 to about 80 wt.%, preferably from about 10 to 50% of oligomers is disclosed on page 107, lines 26-30 and page 112, lines 8-12.
one or more acrylate- or methacrylate-terminated urethane oligomers.	Acrylate- or methacrylate terminated urethane oligomers are disclosed by the formula on page 47, lines 12, et seq. wherein the radiation-curable moiety R may be an acrylate

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	or methacrylate (e.g., page 48, line 23), the linking group L may be urethane (page 47, line 33).
84. The coated optical fiber of claim 83, wherein said primary coating layer comprises a cured reaction product of, in addition to the acrylate or methacrylate-terminated oligomer from about 0.1 to about 20 percent by weight of	Disclosure of a primary coating layer comprising a cured reaction product of from about 0.1 to about 20% by weight of additional monofunctional monomers is found in Ex. 6-1 (5%) (page 103, Table 10), Ex. 4-10 (16.64%%) (page 87, Table 8).
a monomer selected from the group consisting of isobornyl acrylate,	Isobornyl acrylate is disclosed on page 113, Table 12, Ex. 8-2, 8-3.
isodecyl acrylate,	Isodecyl acrylate is disclosed on page 96, Table 9 (Ex. 5-2, Ex. 5-4, 5-5).
hexanediol diacrylate,	
phenoxyethyl acrylate, and	Phenoxyethyl acrylate is disclosed on page 113, Table 12, Ex. 8-1.
lauryl acrylate.	Lauryl acrylate is disclosed on page 113, Table 12, Ex. 8-1, 8-2, 8-3, 8-4.
85. The coated optical fiber of claim 83 wherein said primary coating layer additionally comprises about 1.0 wt% of an organofunctional silane adhesion promoter.	The disclosure of organofunctional silane adhesion promoter is found on page 38, line 23 through page 40, line 3: ("…'glass coupling moiety' … is understood to mean a functional group which … has the ability to improve adhesion to an inorganic surface or at an inorganic surface ….", "Silane coupling moieties are preferred." 1.0 wt.% is disclosed on page 79, Table 6, gamma-mercaptopropyl trimethoxy silane (1 part by weight of 100 parts).
86. The coated optical fiber of claim 85,	The mercapto-functional silanes are disclosed

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wherein said adhesion promoter is a mercapto-functional silanes.	on page 41, lines 4-6 ("Common organic functionalities of the silane agents include, for example, … mercapto, … .").
87. The coated optical fiber of claim 85, wherein said adhesion promoter is 3-mercaptopropyltrimethoxy-silane.	3-mercaptopropyltrimethoxysilane is disclosed on page 79, Table 6 (Ex. 3-1 to 3-4).
88. The coated optical fiber of claim 83, wherein said primary coating layer additionally comprises a photoinitiator.	The addition of a photoinitiator is disclosed on page 50, line 18 ("at least one photoinitiator").
89. The coated optical fiber of claim 83, wherein said primary coating layer additionally comprises from about 0.5 percent by weight of thiodiethylene bis(3,5-di-tert-butyl-4-hydroxy cinnamate .	A disclosure of about 0.5 percent by weight of thiodiethylene bis(3,5-di-tert-butyl-4-hydroxy cinnamate is in Ex. 2-6 on page 59, Table 4 (0.5%).
90. The coated optical fiber of claim 73, wherein the primary coating comprises the radiation-cured reaction product of the following ingredients:	
(A) from about 5 percent to about 80 percent by weight of	The amount of linear oligomer can be from about 1 or 10 to about 80 wt.% (page 107, lines 26-30).
a reactively terminated urethane oligomer which is the reaction product of	A disclosure of reactively terminated urethane oligomers is disclosed by the formula on page 47 and by the formula for linear oligomers on page 107.
(i) polyether polyol; (ii) a wholly aliphatic polyisocyanate; and (iii) an endcapping monomer supplying a reactive terminus;	An oligomer between (i) polyether polyol, (ii) wholly aliphatic polyisocyanate and (iii) an endcapping monomer, is disclosed by the oligomer shown in Table 8 (see page 89, following the table).
(B) from about 15 percent to about 65 percent by weight of ethoxylated nonyl phenol acrylate;	A disclosure of (B) ethoxylated nonylphenol acrylate between about 15% and about 65% is found in Ex. 7-1, Table 11, page 109 (15.3%) and Ex. 3-1, Table 6, page 79 (64.4%).

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(C) from about 1.5 percent to about 3 percent by weight of a photoinitiator; and	From about 1.5 to about 3% of photoinitiator (C) photoinitiator is found in Table 8, page 87, Ex. 4-11 (1%), Ex. 4-10 (3%).
(D) about 1 percent by weight of an organofunctional silane adhesion promoter which binds in with the primary coating composition during cure;	About 1% of (D) organofunctional silane adhesion promoter is disclosed in Examples 3-1 to 3-4 in Table 6, page 79.
wherein all of the stated percentages are percentages by weight based on the total weight of the primary coating prior to cure,	The disclosure of the sums of the amounts based on the total weight of the primary coating prior to cure is seen from the data in the Tables wherein the total of the ingredients was 100 wt.%.
wherein the tensile modulus of the coating composition, when cured, is less than about 220 psi at 25° C, and	A disclosure of tensile modulus values of less than about 220 psi at 25°C is found in Table 8, page 88: Ex. 4-5 (1.2 MPa = 174 psi); Ex. 4-9 (1.1 MPa = 160 psi) and Ex. 4-10 (1.3 MPa = 188.5 psi).
wherein the refractive index of the cured coating composition is suitable for an optical fiber coating.	A disclosure of refractive index suitable for an optical coating is inherent throughout the specification.
91. The coated optical fiber of claim 73, wherein the primary coating comprising the radiation-cured reaction product of the following ingredients: (1) from about 5 to about 80 percent by weight of an acrylate-terminated aliphatic polyether urethane oligomers; (2) from about 15 to about 65 percent by weight of ethoxylated nonyl phenol acrylate; (9) from about 1.5 to about 3 percent by weight of a photoinitiator; and (10)about 1 percent by weight of an organofunctional silane adhesion promoter which binds in with the primary coating composition	See discussion for Claim 90 for the support for claim 91.

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during cure; wherein all of said percentages being percentages by weight based on the weight of the primary coating prior to cure.	
92. The coated optical fiber of claim 91, wherein said primary coating is obtained by curing a composition that is liquid at 25° C.	The coatings prior to curing are liquid at 25 °C, as shown by the measurement of viscosity at 25 °C: page 79, Table 6, (viscosity of primary coating compositions at 25 °C, in the range of 6760 to 7650 mPa.s; similar viscosity values at 25 °C for the primary coating compositions in Tables 7, 8, 9 and 10).
93. An optical ribbon comprising a plurality of optical fibers of claim 73 and a matrix material, the plurality of fibers held together in a parallel arrangement by the matrix material.	Claim 129 discloses a ribbon assembly comprising a plurality of coated optical fibers, at least one optical glass fiber coated with at least an inner primary coating and a matrix material bonding the plurality of coated optical fibers together. A disclosure of ribbon assemblies is found on page 1, lines 8-12 and page 114, lines 2 et seq.
94. A method of preparing a coated optical fiber for splicing, the coated optical fiber being a coated optical fiber according to claim 73, comprising the steps of: stripping the primary coating away from a portion of the optical fiber at a temperature in at least a portion of the temperature range from about 25° to about 125° C. by cutting with a blade into the primary coating, then having the blade exert a force on the primary coating in a direction parallel to the optical fiber to force the primary coating away from the portion of the optical fiber, and optionally wiping the portion of optical fiber from which primary coating has been forced away with an alcohol laden piece of cloth or paper, such that the stripped portion exhibits little or no residue of the primary coating.	A disclosure of a method for preparing a coated optical fiber for splicing including ribbon stripping is found on page 2, lines 32 to page 3, line 16. A disclosure of the optional wiping step is found in the Mills' test incorporated by reference into the application on page 7, lines 17-23.

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	A disclosure of no residue is in Table 2, Ex. 2-1, page 55.
95. A method of splicing coated optical fibers comprising, preparing two optical fibers for splicing according to the method of claim 94; aligning the stripped portions of the prepared optical fibers; and joining the stripped portions of the prepared optical fibers.	A method for connecting optical fibers individually or as ribbon assemblies for "mass fusion splicing operation" is disclosed on page 2, lines 13-31.
96. A spliced optic fiber made by the method of claim 95.	A disclosure of a spliced optic fiber by the splicing operation is found on page 2, lines 13-31
97. A coated optical fiber comprising: an optical fiber; a primary coating coated onto the optical fiber, the primary coating made of a material which is removable from a glass substrate by an adhesion test force of less than 45 g/in, as measured by a peel back test at 50% relative humidity an elongation of at least about 88% as measured by ASTM D-638, and a tensile strength of at least about 72.5 psi as measured by ASTM D-638.	A coated optical fiber comprising an optical fiber and primary coating is disclosed on page 10, lines 16-18; Examples 2-2 and 2-3 (Table 3, page 57) show that the invention encompasses coatings having an adhesion force of 45 g/in or less. An 88% elongation is disclosed in Example 5-3 on page 96 in Table 9; ASTM D-638M is disclosed on page 66, line 28 to page 69, line 32. A tensile strength of 72.5 psi, is disclosed as 0.5 MPa in Example 5-3 on page 82 in Table 9. The conversion from MPa to psi (1MPa = 145 psi) can be found on page 68, line 10.
98. A process for preparing a coating optical fiber comprising (1) applying to an optical fiber a primary coating composition layer comprising a mixture of the following ingredients: (A) from about 5 percent to about 80 percent	A process for preparing a coated optical fiber by applying a primary coating composition to the optical fiber is shown generally throughout the specification and examples, including, page 1, lines 15-17; page 51, lines 15-30 (including the disclosure of incorporated patents 4,474,830 and 4,913,859). The composition with ingredients (A), (B),

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by weight of a reactively terminated urethane oligomer which is the reaction product of (i) a polyether polyol; (ii) a wholly aliphatic polyisocyanate; and (iii) an endcapping monomer supplying a reactive terminus;	(C) and (D) are also described throughout the specification. A reactively terminated urethane oligomer (see, e.g., the formulas on page 47, lines 19-39 and page 48, lines 1-2; page 107, lines 5-15) wherein the linking group is preferably urethane (e.g., page 47, line 33; page 107, line 10). The reaction of a mixture of (i) polyether polyol, (ii) wholly aliphatic diisocyanate and (iii) end-capping monomer supplying a reactive terminus, is shown in Examples (e.g., page 57, Table 3, Oligomer C: reaction product of (i) polytetramethylene ether glycol, (ii) isophorone diisocyanate, and (iii) hydroxyethylacrylate and mercaptosilane) The Examples on page 57, Table 3, also include (B) ethoxylated nonyl phenol acrylate; (C) photoinitiator; and (D) organofunctional silane, at or within the stated ranges.
(B) from about 15 percent to about 65 percent by weight of ethoxylated nonyl phenol acrylate;	A disclosure of (B) ethoxylated nonylphenol acrylate between about 15% and about 65% is found in Ex. 7-1, Table 11, page 109 (15.3%) and Ex. 3-1, Table 6, page 79 (64.4%).
(C) from about 1.5 percent to about 3 percent by weight of a photoinitiator; and	From about 1.5 to about 3% of photoinitiator (C) photoinitiator is found in Table 8, page 87, Ex. 4-11 (1%), Ex. 4-10 (3%).
(D) about 1 percent by weight of an organofunctional silane adhesion promoter which binds in with the primary coating composition during cure;	About 1% of (D) organofunctional silane adhesion promoter is disclosed in Examples 3-1 to 3-4 in Table 6, page 79.
wherein all of the stated percentages are percentage by weight based on the total weight of the primary coating prior to cure,	The disclosure of the sums of the amounts based on the total weight of the primary coating prior to cure is seen from the data in the Tables wherein the total of the ingredients was 100 wt.%.
wherein the tensile modulus of the coating composition when cured, is less than about 220 psi at 25° C., and wherein the refractive index of the cured coating composition is suitable for an optical fiber coating;	A disclosure of tensile modulus values of less than about 220 psi at 25°C is found in Table 8, page 88: Ex. 4-5 (1.2 MPa = 174 psi); Ex. 4-9 (1.1 MPa = 160 psi) and Ex. 4-10 (1.3 MPa = 188.5 psi).
and	
(2) radiation-curing said coating in situ,	The step of radiation-curing in situ is also implicit throughout the disclosure and is

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wherein the primary coating is strippable from a portion of the optical fiber at a temperature in at least a portion of the temperature range from about 25° to about 125° C. by exerting a force to a portion of the primary coating in a direction parallel to the longitudinal axis of the glass fiber which is away from a portion of the primary coating remaining on the optical fiber, such that the exertion of force followed by an optional one wipe, with an alcohol laded piece of cloth or paper of the stripped portion of optical fiber, results in the stripped portion of optical fiber having a substantially no residue of the primary coating.	shown, for example, on page 34, lines 1-2. That the primary coating is strippable at the temperature ranges and under the conditions specified, with substantially no residue of the primary coating is disclosed throughout the specification, for example, page 34, lines 2-5 for the temperature range of 25° to 125° C; and Ex. 2-1, on page 55, Table 2, for "no residue." The optional one wipe with alcohol is disclosed in the incorporated Mills test disclosure as stated on page 7, lines 17-23.